LEVEL news

Great Lakes - St. Lawrence River Water Levels

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Volume 1, Number 10 **October 15, 1993**

Storm Season Arrives With Autumn

But Risks Of Serious Flood And Erosion Damage Are Low

Fall is usually the season for increased storm activity on the Great Lakes, but the risks this year of serious flood and erosion damages are likely to be relatively low for the next few months.

"Although the levels of some of the Great Lakes are higher than average, they are below the range at which serious problems might be expected," explains Ralph Moulton, Manager of Environment Canada's Great Lakes Water Level Communication Centre.

"With levels on all of the lakes expected to continue their seasonal declines through the fall, the potential for serious flood and erosion damages is likely to further diminish."

However, high winds from the south west prompted Environment Canada to issue high water level warnings for Eastern Lake Erie on September 27 and October 3.

In both cases, the winds were expected to raise the lake above its critical level, the elevation at which significant damage begins to occur. On Lake Erie between Fort Erie and Long Point, the critical level is 175.5 metres. However, the lakes remained just under the critical level for both events.

Lake Ontario was the only lake to begin October with a water level less than its seasonal average. Lake Superior began the month at 2 cm above its long-term average for the time of year, while Lake Huron was 25 cm above average, and Lakes Erie and St. Clair were 30 cm higher than their averages for the time of year. (The figure for Lake St. Clair is different than that indicated on the Monthly Water Level Bulletin. The Bulletin uses a 1961-1992 average, which is higher than the 1900-1991 average.)

Assuming the most probable water supplies over the next six months, the levels of Lakes Superior, Huron, St. Clair and Erie are forecast to decline gradually but remain above their seasonal averages.

Lake Ontario is also forecast to decline and remain slightly below its long-term average. Montréal Harbour is expected to decline but remain above chart datum for the remainder of the six-month forecast period.

If water supplies to the Great Lakes are significantly higher or lower than average, lake levels could rise above or fall below those forecast.

International Boards Oversee Regulation Of Two Great Lakes

Lakes Superior and Ontario are the only two of the Great Lakes that are artificially regulated according to regulation plans approved by the International Joint Commission. The Commission is a Canada-U.S. Body appointed to oversee boundary water issues. The Commission, in turn, appoints Boards of Control to supervise regulation of the two lakes.

Since about 1914, hydropower plants, navigation structures and compensating works (which help offset the effects of the other structures) have regulated Lake Superior's level and outflow. The object of lake's regulation plan is to maintain the level within a range of 1.10 metres, and to try to balance it with the levels of Lakes Michigan and Huron downstream. The International Lake Superior Board of Control supervises this process.

Regulation of Lake Ontario accompanied completion of the St. Lawrence River Seaway and Power Project in 1960. The Moses-Saunders power dam that crosses the St. Lawrence River between Cornwall, Ontario, and Massena, New York, is the principal structure for regulating the lake's outflow. The regulation plan calls for maintenance of Lake Ontario's level within a range of 1.2 metres, and it is operated in consideration of interests on Lake Ontario, as well as those downstream on the St. Lawrence River and at the Port of Montréal. The International St. Lawrence River Board of Control oversees these operations.

For more information on lake regulation, ask for our brochure: Great Lakes-St. Lawrence River Regulation: What It Means And How It Works.

St. Lawrence Boaters See Improvements in River's Water Levels

In our last issue, we reported on low water level problems encountered by recreational boaters on the upper part of the St. Lawrence River, especially between Cornwall and Iroquois, the section of river known as Lake St. Lawrence.

Since then, conditions on the river have improved considerably. By the beginning of October, the water level at Long Sault had risen to near its seasonal average. In August, the Long Sault level fell to a low of 60 cm below its average for the time of year. This caused decreased depths for boating.

Also in the last issue, we reported that the International St. Lawrence River Board of Control began reducing the outflows from Lake Ontario on August 23.

These reductions helped increase the river's level upstream of the power dam at Cornwall. The Board continued the flow reductions through October 15.

These reduced outflows were intended to provide some improvements in the water level on Lake St. Lawrence as the boating season drews to a close.

The flow reductions will be limited in order not to excessively reduce the water level at Montréal Harbour.

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Webmaster
Last Updated: 2001-08-23
Last Reviewed: 2001-08-23

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URL: http://www.on.ec.gc.ca/water/level-news/leveln-oct93.html